

State of California  
Department of Water Resources  
State Water Resources Control Board  
Department of Health Services

2002 RECYCLED WATER TASK FORCE  
MINUTES OF  
10 JANUARY 2003 MEETING

**Meeting Time and Location**

10:00 am-2:00 pm, 10 January 2003, Cal/EPA Building, 2nd Floor, Sierra Hearing Room,  
1001 I Street, Sacramento, California.

**Attendance**

Task Force Members:

|                    |                  |                       |
|--------------------|------------------|-----------------------|
| Takashi Asano      | Earle Hartling   | Mansour M. Nasser     |
| Kirk Bone          | Rex Hime         | R. K. Spackman        |
| Jerry D. Brown     | Keith Israel     | David P. Spath        |
| Dan Carlson        | Richard Katz     | Frances Spivy-Weber*  |
| Bob Castle         | Luana Kiger      | William Steele        |
| Ane D. Deister     | Denise L. Kruger | William T. VanWagoner |
| William R. Everest | Keith Lewinger   | Muriel Watson         |
| Kathy Fletcher     | Gary R. Lynch    | Bob Whitley           |
| Steve Hall         | Rick Martin*     | David R. Williams     |
|                    | Jonas Minton     |                       |

\*Via telephone

Task Force Substitutes:

Richard Carlson for Gary Erbeck  
Al Vargas for Steve Shaffer  
Mark Tettemer for Darryl G. Miller

Task Force Members Absent:

|                   |                 |                  |
|-------------------|-----------------|------------------|
| Rich Atwater      | Tom Morrison    | John B. Withers  |
| Herman C. Collins | Phillip J. Pace | Patrick Wright   |
| Karen Furst       | Tim Ramirez     | Marguerite Young |

Facilitator:

H. Eric Schockman

State Staff and Members of Public:

32 Persons (See attachment for complete list)

## **Summary of Proceedings**

### **A. Self-Introduction and Welcome Remarks**

Richard Katz, Chair of the 2002 Recycled Water Task Force, provided opening remarks. He stressed the need for new water sources, noting the reduction in Colorado River water available to California.

He thanked all the participants, including the hosts, for attending the special 7 April 2003 tour of water recycling facilities in southern California organized for Task Force members and associates. One attendee remarked about the two different perspectives he heard on the tour regarding the ease of shutdown tests for cross-connection control. One perspective confirmed his own that the tests were not a problem, whereas the other perspective was that it was a nuisance. The tour was appreciated by everyone.

Katz asked that the Task Force report include a summary of current water reuse taking place in California and an estimate of future potential. Steve Hall requested information on water use in California to provide a rational basis for pursuing water recycling.

### **B. Approval of Meeting Minutes**

The Task Force approved the minutes of the meetings on 12 September and 19 November 2002.

### **C. Task Force Report Recommendations and Priority Setting**

The Task Force and attendees reviewed draft recommendations, revised them, and ranked them in priority. The following is the procedure that was used.

1. The staff summarized all recommendations of the six workgroups of the Task Force on large posters that were posted on the walls of the room. The recommendations of each workgroup were kept separate. The level of government that should be responsible for implementing each recommendation was shown on the posters.
2. Members of the workgroups, including both Task Force members and other members, as well as other attendees of the meeting, clustered around the recommendations of their workgroup and ranked their own recommendations to provide a starting point for the group as a whole to do a combined ranking of all recommendations. During this process, some recommendations were revised and many were grouped together under common themes or issues. The issue groups rather than each individual recommendation were ranked.
3. Everyone reconvened as a whole and listened to a representative of each workgroup describe the revised recommendations, issue groups, and ranking.
4. All attendees were given 10 stickers, 5 each of two colors, one color representing short term priorities and the other color representing long term priorities. The stickers were used as votes.

To distinguish between votes of Task Force members and others, each group was given different colors. Short term was defined as recommendations that should be accomplished within 12 months; long term beyond 12 months. Everyone was given time to circulate around the room between posters to place their stickers next to the issues of their highest priority.

5. The votes were tallied and the everyone reconvened to review the results. The entire list of recommendations, their groupings into issue groups, and the votes are presented in Table 1\*\*.

The top ten rankings of issues and their associated recommendations were listed for both the grand total votes of all attendees and of the Task Force members alone. The issues falling within the top ten priorities were nearly identical. Because of tie votes, the number of issues became 13. These are listed in Table 2. While the issues have been ranked in Table 2 according to the votes, the general opinion was that the specific ranking was less important than the overall identification of the top 13 issues for action.

It was observed that the separation between short term and long term categories was not useful because the short term and long term votes seemed to cluster around the same issues.

#### **D. Discussion and Public Comments**

A letter from the City of Carlsbad was read by Denise St Laurent, which is attached. The letter addressed workgroup recommendations related to the Plumbing Code and cross-connections. Bob Hultquist clarified the current requirements in regulations and the proposed recommendations. While the regulations require periodic evaluations for cross-connections, the regulations allow alternatives to shut down tests once recycled water use has started. It is necessary that this intent be clear. On the other hand, the regulations do not prohibit an agency from deciding that a shut down test is appropriate in specific cases.

A question was raised whether the Task Force had taken any stand on mandatory use of recycled water. The response was that the workgroups had not discussed this issue. Local agencies are empowered to mandate the use of recycled water. The WateReuse Association has discussed this issue and decided not to support statewide mandatory use policies and to leave the decision of mandatory use to the local level.

There was discussion of alternate terms referring to recycled water—reclaimed water and sewage and the legal implications as the terms affect the applicability of water quality regulations. An opinion was that recycled water should not be classified as sewage but rather as a water resource. It was pointed out that the Regulations and Permitting Workgroup discussed adopting legislation to reclassify recycled water as not being wastewater and concluded that this could not be accomplished in the short term and could open up other unintended issues related to direct and indirect reuse. It was also pointed out that from a regulatory perspective, it is impossible not to recognize the origin of recycled water.

**E. Future Meeting**

The next meeting will be delayed from February 2003 in San Francisco to March 2003 in Sacramento. The meeting is intended to be the last meeting of the Task Force and State administration officials will be invited to attend. A Sacramento venue will make it more feasible for officials and Assemblymember Goldberg to attend. A date in March has not been selected yet.

Table 1. Tally of Priority Voting of Issues and Recommendations on 10 January 2003

| Workgroup          | Issues and Full Text of Recommendations  | Task Force    Non-Task Force |        |       |      | Short<br>Term<br>Total | Long<br>Term<br>Total | Grand<br>Total | Task<br>Force<br>Total |
|--------------------|--|------------------------------|--------|-------|------|------------------------|-----------------------|----------------|------------------------|
|                    |  | Red                          | Yellow | Green | Blue |                        |                       |                |                        |
| Economics          | <b>I. Economic Analysis</b><br>1. Local agencies are encouraged to perform economic analyses (quantifying total benefits and costs) of water recycling projects in addition to financial analyses (to determine cash flow) even if they are not seeking state or federal funding. A project may be economically feasible, but not financially feasible and vice versa. Economic analyses provide more transparency on true benefits and costs and increase the probability of identifying project beneficiaries that can make the project more financially feasible and economically justified.<br>2. Include a financial and an economic analysis as two of the funding criteria in state and federal funding programs. Projects proposed for funding should be financially feasible (sufficient cash flow to pay for and maintain the project) and economically feasible (total statewide project benefits exceed total statewide project costs). The funding agencies should provide guidance and assistance for all funding applicants to conduct the analyses; and review the analyses in applications to ensure they are done appropriately and consistently. These analyses need not duplicate appropriate analyses already performed by local agencies.  | 7                            | 1      | 2     | 3    | 8                      | 5                     | 13             | 9                      |
| Economics          | <b>II. Develop a uniform method for analyzing projects and a consistent economic feasibility framework across funding agencies. This could be accomplished by an advisory team of economists, recycled water experts, and stakeholders.</b><br>1. Identify a set of desirable characteristics for an economic feasibility analysis framework based on true benefits and costs for recycled water projects in California.<br>2. Review existing frameworks to find the commonalities and gaps based on the characteristics from 1. above; add components to the framework that fill in the gaps.<br>3. Develop a practical and implementable process to identify and include non-market benefits and costs into the framework. Development of non-market benefits and costs that are associated with regions or types of recycled water use would provide results that could be applied to many projects. This is large task and could be undertaken by both an advisory team and special studies.<br>4. Develop a mechanism to increase the opportunity for identifying equitable capital and operational funding schemes according to the beneficiaries based on allocation of the benefits and costs in the economic analysis. This could include beneficiaries on both the local, regional, and statewide level.<br>5. Develop guidance to conduct an economic feasibility analysis<br>6. Develop a mechanism for information from the economic feasibility analysis to feed into the financial feasibility analysis and funding decision making<br>7. Develop appropriate benchmarks for comparing the incremental costs of developing recycled water with the cost of developing an equivalent amount through fresh water projects. | 12                           | 5      | 1     | 4    | 17                     | 5                     | 22             | 13                     |
| Economics          | <b>III. Merged into I or II</b>  |                              |        |       |      |                        |                       |                |                        |
| Economics          | <b>IV. Merged into I or II</b>   |                              |        |       |      |                        |                       |                |                        |
| CALFED/<br>Funding | <b>I. Increase State funding for reuse/recycling beyond Proposition 50 and other current sources.</b><br><b>II. Develop a revised funding procedure to provide local agencies with assistance in potential State and federal funding opportunities. The SWRCB will facilitate the establishment of a Committee to implement the recommendations of this report. Assistance and guidance will be provided to such agencies as follows:</b>  | 13                           | 9      | 18    | 9    | 22                     | 27                    | 49             | 31                     |
| CALFED/<br>Funding | 1. The SWRCB will facilitate a newly established Water Recycling Funding Coordination Committee (Committee) to coordinate applicant's funding needs with the appropriate funding agencies. The Committee will guide the local agency through the identification of: (1) Correct funding source(s), (2) Accountability measures and (3) Monitoring and assessment reporting requirements.   | 3                            | 1      | 3     | 2    | 4                      | 5                     | 9              | 6                      |

| Workgroup          | Issues and Full Text of Recommendations  | Task Force |        |       |      | Non-Task Force | Short Term Total | Long Term Total | Grand Total | Task Force Total |
|--------------------|--|------------|--------|-------|------|----------------|------------------|-----------------|-------------|------------------|
|                    |  | Red        | Yellow | Green | Blue |                |                  |                 |             |                  |
| CALFED/<br>Funding | <p>2. The Committee will establish quantifiable objectives to be used in the review of a proposed project. Objectives shall include 1) the local, regional, and state benefits, and; 2) non-water supply benefits, resulting from the project. When reviewing proposed projects, the Committee will recommend modifications to maximize the benefit to the State's water supply.</p> <p>3. State funding agencies will use information from completed regional studies when determining the prioritization of funding, for those projects encompassed under an existing regional plan. The process does not exclude projects where regional plans do not exist..</p> <p><b>III. Committee Formation</b></p> <p>1. Legislative Level - The Committee will work cooperatively with funding agencies, streamlining project selection within one agency while ensuring an open process for setting selection criteria, peer review and public review of the project selection will also be provided. The Committee will work to ensure that projects have an appropriate level of scientific review, and ongoing monitoring and data analysis.</p> <p>2. State Agency Level - The Committee shall maintain a listing of Local, State and federally funded projects. The list should include detailed project cost and water supply yield information</p> |            |        |       | 1    | 0              | 1                | 1               | 0           |                  |
| CALFED/<br>Funding | <p><b>IV. Public information to support education and outreach efforts will be provided by having funding agencies:</b></p> <p>1. Present public funding availability at statewide conferences, and</p> <p>2. Establishing an Annual Water Recycling Funding Information Workshop to assist participants in preparing funding application packages for all funding sources (Federal and State) available.</p> <p>3. One common website</p>   |            |        | 1     |      | 1              | 0                | 1               | 0           |                  |
| CALFED/<br>Funding | <p><b>V. Legislative Level - Funding sources should be expanded to include sustainable State funding (research funding to DWR only) for DWR's technical assistance and research, including flexibility to work on local and regional planning process, on-going studies of emerging issues, and new technology.</b></p> <p><b>VI. Funding agencies should be provided with the resources to perform comprehensive analysis of past recycling performance (costs and benefits) and projection of future performance. The funding agencies should conduct these analyses jointly in an open and peer-reviewed process. These analyses should quantify recycling water yield in acre-feet per year and delineate yield from potential or planned. The analyses should list other benefits of recycling (such as water supply reliability), and where possible to quantify these benefits. They also should provide costs in equivalent units such as equivalent annual cost.</b></p>  |            |        | 4     | 2    | 8              | 4                | 10              | 14          | 2                |
| CALFED/<br>Funding | <p><b>I. California should adopt its own Appendix J of the California Plumbing Code in order to avoid the inconsistencies between the IAPMO version and other California regulations.</b></p> <p>Encourage adoption by the Department of Water Resources of the recommended version of Appendix J (included as Appendix C of Plumbing Code/Cross Connection White Paper) at the earliest opportunity.</p>  | 14         | 9      | 6     | 2    | 23             | 8                | 31              | 20          |                  |
| Plumbing           | <p><b>II. DHS Guidance on Cross-Connection Control</b></p> <p>1. DHS guidance should be prepared that would clarify the intent and applicability of Title 22, Article 5. If guidance cannot be written to accomplish this, the regulation should be rewritten.</p> <p>2. DHS guidance should be prepared that would clarify the requirement for testing in Title 22, Section 60316(a) and stress that alternatives to a pressure test are sufficient in most cases.</p> <p>3. DHS should amend Title 22, Article 5 to incorporate inspection and testing requirements consistent with those proposed in the recommended California Appendix J included as Appendix C in Plumbing Code/Cross Connection White Paper.</p>  | 2          | 6      | 11    | 6    | 8              | 17               | 25              | 13          |                  |
| Plumbing           | <p><b>III. Encourage stakeholders to review the DHS draft changes of the Title 17 Cross-connection Control requirements and comment as appropriate.</b></p>  | 1          |        |       |      | 1              | 0                | 1               | 1           |                  |
| Plumbing           | <p><b>IV. Support a thorough assessment of the risk associated with a cross-connections between disinfected tertiary recycled water and potable water. The risk assessment should identify:</b></p> <p>• The risk of a worst case cross-connection;</p> <p>• The likelihood of a cross-connection in various use situations; and</p> <p>• Microbiological and chemical exposure risks.</p>   |            |        | 4     | 2    | 0              | 6                | 6               | 4           |                  |

| Workgroup                         | Issues and Full Text of Recommendations  | Task Force |        |       |       | Short   | Long    | Grand   | Task    |
|-----------------------------------|--|------------|--------|-------|-------|---------|---------|---------|---------|
|                                   |  | Red        | Yellow | Green | Blue  | Term    | Term    |         | Force   |
|                                   |  | Total      | Total  | Total | Total |         |         | Total   | Total   |
| Plumbing<br>Science/<br>Health    | The risk assessment would provide a scientific basis for regulations controlling potential cross-connections.<br><b>V. Housing and Community Development Department should submit a code change to remove the requirement for the skull and crossbones symbol in Sections 601.2.2 and 601.2.3 of the California Plumbing Code. DWR and DHS should request HCD to initiate the change in time for the California Building Commission's 2003 annual code cycle.</b>  | 1          |        | 1     | 1     | 1       | 2       | 3       | 2       |
|                                   | <b>I. Funding sources should be expanded to include sustainable State funding for research.</b><br>" Research on water recycling treatment, testing and monitoring methods and development of innovative/emerging technologies<br>" Flexibility to study emerging issues that are constantly arising<br>" Long-term research on fundamental scientific principles and mechanisms addressing technology, public and environmental health that generate quality biophysical and engineering-oriented knowledge that will be a solid foundation for public policy and regulation of water recycling.  | 5          | 12     | 22    | 10    | 17      | 32      | 49      | 27      |
| Science/<br>Health                | <b>II. Encourage an integrated academic program on one or more campuses for water reuse research and education</b><br>· Preparation of well-educated practitioners on water recycling production, quality, and use.  | 8          | 4      | 3     | 8     | 12      | 11      | 23      | 11      |
| Science/<br>Health<br>Regulations | <b>III. Recommend not reconvening the statewide science-based panel to address indirect potable reuse.</b><br><b>I. Incidental Runoff</b><br>1. A committee should be formed to evaluate currently available scientific data that demonstrate the effects of discharges of incidental runoff. Many recycled water producers and/or distributors have performed varied testing and monitoring of the recycled water distributed that could be available to the committee. This scientific evidence may be in the form of reporting requirements to regional boards, testing requirements for spills, State Implementation Plan (13267 letter), or other reports prepared for various reasons. The committee should recommend best management practices that under normal environmental conditions would allow discharge of incidental runoff without harm to the environment.<br>2. The SWRCB should convene a committee to review the legal requirements of federal and state statutes and regulations that relate to the regulation of incidental runoff and to determine the regulatory and enforcement options that are available to Regional Water Quality Control Boards. This review should include how other states address comparable situations in regulation and enforcement. Within current legal constraints, the following options should be evaluated:<br>a) Development of statewide general permit requirements for ponds filled with recycled water. Within the general permit, unintentional discharges of commingled recycled and stormwater would not be treated as violations, but rather water that is a mixture of rainwater and recycled water that runs off a site as a direct result of rainfall. Specific requirements of the permit would include best management practices and a method of uniform enforcement across the state.<br>b) Regional Water Quality Control Board adoption of a specific waiver of waste discharge requirements for unintentional recycled water overflows pursuant to Water Code section 13269.<br>c) Allowance of discharges under an NPDES permit with the following conditions:<br>i. Compliance point to be at the point of leaving the treatment plant rather than exit of the pond<br>ii. WWTP NPDES permit may be used rather than a separate permit being required<br>iii. Discharge points shall be defined in WWTP NPDES permit<br>iv. Monitoring and testing shall be established relative to the pond/site<br>v. California Toxics Rule would apply to WWTP discharge only | 19         | 9      | 12    | 7     | 0<br>28 | 5<br>19 | 5<br>47 | 2<br>31 |
| Regulations                       | <b>II. Uniform Interpretation of State Standards</b><br>1. The SWRCB should appoint and empower a key person to provide oversight of the water recycling permits issued by the various regional boards. This person would act as an ombudsman to facilitate recycling and arbitrate conflicts.<br>2. The DHS needs to improve both knowledge and attitudes of district engineering staff, who too often invoke requirements that are not supported by the uniform statewide recycling criteria.  | 13         | 7      | 10    | 6     | 20      | 16      | 36      | 23      |

| Workgroup       | Issues and Full Text of Recommendations  | Task Force    Non-Task Force |        |       |       | Short | Long | Grand | Task  |
|-----------------|--|------------------------------|--------|-------|-------|-------|------|-------|-------|
|                 |  | Red                          | Yellow | Green | Blue  | Term  | Term |       |       |
|                 |  | Total                        | Total  | Total | Total |       |      |       | Total |
| Regulations     | <p>3. Conduct a legal review to determine whether authority exists for local health agencies to adopt water recycling requirements that are more restrictive than those included in Titles 17 and Title 22.</p> <p>4. Implement the concept of statewide uniformity that is practiced by the California Building Codes for DHS Title 22 regulations. Create a regulatory or statutory provision that the only way for local authorities to change the uniform statewide recycling criteria would be to prove that it is deficient based on local differences in climate, geology, topography, or other defined criteria. If this concept is not already clearly intended in state law, legislation should be adopted to this effect.</p> <p>5. Investigate the water recycling programs in Florida to determine whether there are concepts that should be adopted in California.</p> <p>6. The RWQCBs should be more proactive during the planning of recycled water projects so issues can be addressed before design commences.</p> <p>7. Each RWQCB should have a resident expert on water recycling to provide consistency in permitting and coordinate with other RWQCBs in maintaining consistency.</p> <p>8. Each RWQCB should have an ombudsman to assist in facilitating permitting and conflict resolution.</p> <p>9. The SWRCB should provide oversight over RWQCBs to maintain consistency in water recycling regulation and permitting.</p> |                              |        |       |       |       |      |       |       |
|                 | <b>III. Water Softeners</b>  | 9                            | 4      | 12    | 4     | 13    | 16   | 29    | 21    |
|                 | <p>1. Local agencies should be empowered to regulate the discharge of residential water softeners in the same manner as other sources of discharge into sewers. Legislation should be proposed to amend the Health and Safety Code Sections 116775 through 116795 to reduce the restrictions on the local ability to impose bans on or more stringent standards for residential water softeners.</p> <p>2. On-going or proposed studies on water softeners and their contribution to salinity problems should be reviewed to determine if there would still be outstanding issues worth additional studies. Funding should be sought for such studies.</p> <p>3. Within the current legal restrictions, local agencies should consider publicity campaigns to educate consumers regarding the impacts of self-regenerative water softeners and promote the use of off-site regeneration by service companies. They should also consider financial incentives to upgrade older inefficient appliances to the current standards.</p>   |                              |        |       |       |       |      |       |       |
| Regulations     | <b>IV. Permitting Procedures</b>   | 2                            |        | 1     |       | 2     | 1    | 3     | 3     |
| Regulations     | <p>1. DHS should continue to maintain and update its "California Health Laws Related to Recycled Water - The Purple Book", which is an excellent resource for the permit requirements related to recycled water projects.</p> <p>2. ACWA and CASA should clarify for its members: under what circumstances water and wastewater agencies must seek permits from local land use and building authorities for recycled water projects.</p> <p>3. DHS should clarify the requirements for engineering reports to cover multiple sites of similar use.</p> <p>4. State and local tax incentives should be provided to recycled water users to help offset the permitting and reporting costs associated with the use of recycled water.</p> <p>5. Continued from 1990: State and Regional Boards should work concurrently in the development of basin plans and granting of permits.</p>   |                              |        | 3     |       | 0     | 3    | 3     | 3     |
|                 | <b>V. Source Control</b>   |                              |        |       |       |       |      |       |       |
| Public Outreach | <p>1. Source water/wastewater quality is a significant potential impediment to the expansion of recycled water usage in California. While it can be resolved through technology and management, the costs both monetarily and to public perception of recycled water can be expensive. Local agencies promoting water recycling must be aware of the potential presence of chemicals in recycled water and the potential public perception of what might be in the water. Thus, they must ensure that there is a strong source control program in place to maintain public confidence in the safety of water recycling projects.</p> <p><b>I. Engage the public in an active dialogue using a value-based decision-making model in planning water recycling projects.</b></p> <p>1. Increase public participation through vigorous outreach, augmenting the notification requirements stipulated by CEQA and NEPA.</p>   | 12                           | 7      | 11    | 8     | 19    | 19   | 38    | 23    |

| Workgroup       | Issues and Full Text of Recommendations  | Task Force    Non-Task Force |        |       |       | Short | Long | Grand | Task  |
|-----------------|--|------------------------------|--------|-------|-------|-------|------|-------|-------|
|                 |  | Red                          | Yellow | Green | Blue  | Term  | Term |       |       |
|                 |  | Total                        | Total  | Total | Total |       |      |       | Total |
| Public Outreach | <p>2. Make project decisions that respect and incorporate the community's values and concerns (considering growth, coordination with local planning, environmental justice issues, et cetera).</p> <p>i. Develop the project considering values and ameliorating the concerns gathered at public forums.</p> <p>ii. Recruit consumers for a stakeholder group to assist in the review of the project, alternatives considered, and selection.</p> <p>iii. Meet with policy makers in the early stages and on a regular basis to obtain support to ameliorate challenges that could affect the project.</p> <p>3. Hold more public meetings to gather and supply information at appropriate venues.</p> <p>4. Convene an independent advisory committee composed of experts in the field and consumers from a variety of viewpoints who have no vested interest to review the proposed project alternatives, its implementation and operation where needed.</p> <p>5. Educate and consider with the public all the alternatives for locally achieving water supply goals.</p> <p>i. Evaluate all water resource alternatives using consistent criteria before proceeding with a water recycling project as part of an integrated water resources approach.</p> <p>ii. Evaluate water resource project alternatives based on assessment of all health, costs, environmental, social and relative risk factors, and degree of multiple benefits.</p> <p>iii. Provide on-going updates with all the current information, work progress, and decisions to the community to facilitate an educated choice.</p> <p>6. Local Agencies cultivate and utilize the media opportunities for their projects:</p> <p>i. inform media personnel (editors, reporters, anchors, etc) about recycled water and the project through media kits, fact sheets, etc,</p> <p>ii. prepare question and answer/fact sheets and press releases to address every issue raised,</p> <p>iii. submit articles and opinion pieces to local media for publication,</p> <p>iv. provide timely responses and rebuttals to any misinformation,</p> <p>v. continually disseminate accurate and complete information on water issues to the public utilizing:</p> <ul style="list-style-type: none"> <li>· utility bill inserts,</li> <li>· regular public workshops,</li> <li>· community meetings.</li> </ul> |                              |        |       |       |       |      |       |       |
|                 | <p><b>II. "Top Down" Support for Water Recycling</b></p> <p><b>State Support</b></p> <p>1. Take a leadership role on water recycling:</p> <p>i. develop an easily understood common language of referring to the various recycled water treatment levels beyond Title 22 to improve public discussions of proposed projects,</p> <p>ii. Develop a consistent position on water recycling</p> <p>iii. Appoint person to provide information to legislators on water issues to foster champions in the political arena to speak on water issues with the public.</p> <p>iv. convey its mission to maximize recycled water use throughout all government levels via interagency collaboration,</p> <p>v. set a standard signage for regulatory use which increases the public's understanding of recycled water,</p> <p>vi. facilitate projects and communicate the rules clearly to local health offices,</p> <p>vii. encourage recycled water use by using recycled water in public agency buildings to flush toilets, and/or to irrigate city parks.</p> <p>2. Convene a statewide panel to address issues related to indirect potable reuse.</p> <p>3. Provide funding for public education and outreach</p> <p>4. Coordinate and publicize existing and new water recycling informational programs throughout the industry</p>   | 20                           | 10     | 5     | 2     | 30    | 7    | 37    | 25    |

| Workgroup       | Issues and Full Text of Recommendations   | Task Force    Non-Task Force |        |       |       | Short | Long | Grand | Task  |
|-----------------|---|------------------------------|--------|-------|-------|-------|------|-------|-------|
|                 |   | Red                          | Yellow | Green | Blue  | Term  | Term |       |       |
|                 |   | Total                        | Total  | Total | Total |       |      |       | Total |
| Public Outreach | 5. Work closely with local agencies on water recycling to include: <ol style="list-style-type: none"> <li>provide technical assistance on current and cost effective technology, greater education and clarification on recycled water use policy through informational materials and education supplied to the local agencies on the legislated recycled water regulations</li> <li>coordinate and publicize existing and new recycled water informational programs developed by various agencies for use throughout the industry.</li> </ol> <b>Local Government Support</b> <ol style="list-style-type: none"> <li>Create well-defined local recycled water ordinances.</li> <li>Effectively audit the implementation and enforcement of these ordinances, through adequate staff or resources for planning and/or public works departments.</li> </ol> <b>Regulatory Agencies Support</b> <ol style="list-style-type: none"> <li>Building inspectors, code enforcement officers, etc., effectively enforce local recycled water ordinances.</li> </ol> <b>III. Convene a Statewide panel to recommend changes to public schools and higher education curriculum</b> <ol style="list-style-type: none"> <li>Develop a comprehensive water education curriculum for each grade (K-12) which incorporates recycled water in the Content Standards for California Public Schools: science standards and/or the history-social science standards.</li> <li>Approach institutions of higher education to incorporate recycled water education into their curriculum.</li> <li>Enhance existing programs, for example those offered through the Water Education Foundation, or other organizations.</li> </ol> |                              |        |       |       |       |      |       |       |
|                 |   | 6                            | 2      | 13    | 7     | 8     | 20   | 28    | 19    |
| Public Outreach | <b>IV. State-sponsored media campaign:</b> <ol style="list-style-type: none"> <li>Develop a water issues information program for radio, television, and print.</li> <li>Work with organizations that have produced videos on water issues, including recycled water, and fund updates and expanded programming and encourage cable television networks to broadcast these videos regularly throughout the state.</li> <li>Prepare op ed pieces for publication in newspapers throughout the state</li> <li>Retain an advertising agency/public relations firm to assist in the development of short messages with specific information on urgent topics such as drought, conservation, pollution prevention, water quality, stormwater, wastewater, or recycled water including indirect potable reuse. (Emphasis should be inclusive of the locales' diversity)</li> </ol>   | 7                            | 2      | 11    | 1     | 9     | 12   | 21    | 18    |

## Notes:

Voting occurred only on issue groups shown under Issues and Full Text of Recommendations in **bold type** numbered with Roman numerals.

**Red**      **Task Force member short term priority**

**Yellow**    **Public member short term priority**

**Green**     **Task Force member long term priority**

**Blue**      **Public member long term priority**

Table 2. Top 13 Issues as Voted on 10 January 2003  
(ranked by total vote of attendees)

| <b>Workgroup</b>    | <b>Issue</b>  | <b>Grand Total</b> | <b>Task Force Total</b> |
|---------------------|---|--------------------|-------------------------|
| CALFED/<br>Funding  | <b>I.* Increase State funding for reuse/recycling beyond Proposition 50 and other current sources.</b>  | 49                 | 31                      |
| Regulations         | <b>I. Incidental Runoff</b>   | 47                 | 31                      |
| Science /<br>Health | <b>I. Funding sources should be expanded to include sustainable State funding for research.</b>   | 49                 | 27                      |
| Public<br>Outreach  | <b>II. "Top Down" Support for Water Recycling</b>   | 37                 | 25                      |
| Public<br>Outreach  | <b>I. Engage the public in an active dialogue using a value-based decision-making model in planning water recycling projects.</b>   | 38                 | 23                      |
| Regulations         | <b>II. Uniform Interpretation of State Standards</b>  | 36                 | 23                      |
| Regulations         | <b>III. Water Softeners</b>   | 29                 | 21                      |
| Plumbing            | <b>I. California should adopt its own Appendix J of the California Plumbing Code in order to avoid the inconsistencies between the IAPMO version and other California regulations.</b>  | 31                 | 20                      |
| Public<br>Outreach  | <b>III. Convene a Statewide panel to recommend changes to public schools and higher education curriculum</b>  | 28                 | 19                      |
| Public<br>Outreach  | <b>IV. State-sponsored media campaign:</b>  | 21                 | 18                      |
| Plumbing            | <b>II. DHS Guidance on Cross-Connection Control</b>   | 25                 | 13                      |
| Economics           | <b>II. Develop a uniform method for analyzing projects and a consistent economic feasibility framework across funding agencies. This could be accomplished by an advisory team of economists, recycled water experts, and stakeholders.</b> | 22                 | 13                      |
| Science/<br>Health  | <b>II. Encourage an integrated academic program on one or more campuses for water reuse research and education</b>  | 23                 | 11                      |

Note: Specific recommendations within each issue are shown in Table 1.

2002 RECYCLED WATER TASK FORCE  
ATTENDEES AT 10 JANUARY 2003 MEETING

|                    |   |
|--------------------|---|
| Suzanne Arena      | San Francisco Public Utilities Commission   |
| Alan Arroyo        | Department of Water Resources   |
| Takashi Asano      | University of California at Davis   |
| Beth Beeman        | Irvine Ranch Water District   |
| Fethi BenJemaa     | Department of Water Resources,<br>Office of Water Use Efficiency                        |
| Kirk Bone          | Serrano Associates LLC  |
| Kevin Booker*      | Sonoma County Water Agency  |
| Norris Brandt      | Irvine Ranch Water District   |
| Jerry D. Brown     | Contra Costa Water District   |
| Dan Carlson        | Utilities Department, City of Santa Rosa  |
| Richard Carlson    | San Diego County Department of Environmental Health, Land and Water<br>Quality Division |
| Bob Castle         | Marin Municipal Water District  |
| John Chacon        |   |
| Jim Crowley        | Brown and Caldwell  |
| Ane D. Deister     | El Dorado Irrigation District   |
| Elizabeth Emmett   | SLWA  |
| William R. Everest | Orange County Water District  |
| Kathy Fletcher     | California Environmental Protection Agency  |
| Steve Hall         | Association of California Water Agencies  |
| Richard Harris     | WaterReuse Association  |
| Earle Hartling     | Sanitation Districts of Los Angeles County  |
| Rex Hime           | California Business Properties Association  |
| Bob Hultquist      | Department of Health Services   |
| Steve Hutchings    | Calaveras County Water District   |
| Keith Israel       | Monterey Regional Water Pollution Control Agency  |
| Pam John           | Santa Clara Valley Water District   |
| Paul Jones         | Irvine Ranch Water District   |
| Fawzi Karajeh      | Department of Water Resources, Office of Water Use Efficiency                           |
| Richard Katz       | California State Water Resources Control Board  |
| Bob Kenton         | Santa Clara Valley Water District   |
| Luana Kiger        | USDA, Natural Resources Conservation Service  |
| Nancy King         | Department of Water Resources   |
| Larry Krawesky     | Evaporation Control Systems   |
| Denise L. Kruger   | Customer Service Region II,<br>Southern California Water Company                        |
| Keith Lewinger     | Fallbrook Public Utility District   |
| Ronald B. Linsky   | National Water Research Institute   |
| Gary R. Lynch      | Park Water Company  |
| Michael MacDonald  | FloSafe Consulting  |
| Maria G. Mariscal  | San Diego County Water Authority  |
| Rick Martin*       | Bureau of Reclamation   |
| Richard Mills      | State Water Resources Control Board   |
| Jonas Minton       | Department of Water Resources   |
| Cliff Moriyama     | California Business Properties Association  |
| Rafael Mujeriego   | Orange County Water District  |
| Mansour M. Nasser  | San Jose Municipal Water System   |

Art O'Brien  
 Henry J. Ongerth  
 Robert M. Reed  
 Diana Robles  
  
 Ruben Robles  
 H. Eric Schockman  
 Bahman Sheikh  
 R. K. Spackman  
 David P. Spath  
 Frances Spivy-Weber\*  
 Denise St. Laurent  
 William Steele  
 Mark Tettermer  
 William T. VanWagoner  
  
 Al Vargas  
 Muriel Watson  
 Bob Whitley  
 David R. Williams  
 Jamie Oelrichs

City of Roseville  
  
 Boyle Engineering Corporation  
 State Water Resources Control Board,  
 Division of Clean Water Programs  
 Sacramento Regional County Sanitation District  
 University of Southern California  
 Water Reuse Consultant  
 Chevron Products Company  
 Department of Health Services  
 Mono Lake Committee  
 City of Carlsbad and Safe Water Reuse Foundation  
 Bureau of Reclamation, Southern California Area Office  
 Central Basin Municipal Water District  
 East Valley Water Recycling Project,  
 Los Angeles Department of Water and Power  
 California Department of Food and Agriculture  
 Revolting Grandmas  
 WaterReuse Association, California Section  
 East Bay Municipal Utility District  
 Court Reporter, Northern California Court Reporters

\* By telephone

2002 RECYCLED WATER TASK FORCE  
LIST OF HANDOUT MATERIALS FOR 10 JANUARY 2003 MEETING

1. "Meeting Agenda, 2002 Recycled Water Task Force Sixth Meeting, Friday, 10 January 2003"
2. "2002 Recycled Water Task Force Minutes of 12 September 2002 Meeting", Draft 1/10/03
3. "2002 Recycled Water Task Force Minutes of 19 November 2002 Meeting", Draft 1/10/03
4. "2002 Recycled Water Task Force Summary of Recommendations", Draft 8 January 2003
5. "Comments on State of California White Paper of 2002 Recycled Water Task Force – Draft of November 17, 2002" by Daniel A. Okun, Kenan Professor of Environmental Engineering, Emeritus, University of North Carolina, Chapel Hill.
6. "Water Conservation News", Department of Water Resources, Office of Water Use Efficiency, January 2003

State of California  
Department of Water Resources  
State Water Resources Control Board  
Department of Health Services

**2002 RECYCLED WATER TASK FORCE  
SIXTH MEETING**

**Friday, 10 January 2003, 10:00 a.m. to 2:00 p.m.  
Cal/EPA Building, 2<sup>nd</sup> Floor, Coastal Hearing Room  
1001 I Street, Sacramento, CA 95814**

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MEETING AGENDA  
(*Times are approximate*)

- 10:00-10:10** *Self-introduction of meeting attendees*
- 10:10-10:15** *Approval of previous meeting minutes*
- 10:15-11:00** *Workgroup discussion and priority setting (concurrent gatherings)*
  - ♦ *Public Information, Education and Outreach*
  - ♦ *Science & Health/Indirect Potable Reuse*
  - ♦ *Plumbing Code/Cross Connection Control*
  - ♦ *Funding/CALFED Coordination*
  - ♦ *Economics*
  - ♦ *Regulations & Permitting*
- 11:00-11:10** *Public comments and questions*
- 11:10-11:40** *General discussion/ Priority setting ground rules for the Task Force recommendations*
- 11:40-12:45** *Break and Lunch Set-up/ Task Force recommendation priority selection*
- 12:45-1:00** *Break/ Summarization of selection results*
- 1:00-1:30** *Classification of the Task Force's recommendation (short-term / long-term, Legislature / Government ...)*
- 1:30-1:50** *General discussion and public questions and comments*
- 1:50-2:00** *Future meeting and strategy*
- 2:00** *Adjourn*



# City of Carlsbad

## Public Works-Maintenance & Operations

*stated in the Task Force  
meeting 1/10/02*

January 9, 2003

Richard Katz, Chair  
2002 Recycled Water Task Force  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

Dear Mr. Katz:

I have reviewed the 2002 Recycled Water Task Force Summary of Recommendations dated January 8, 2002. I appreciate the work the Task Force has accomplished, but have some strong concerns about several of the proposed recommendations.

The City of Carlsbad has been a strong supporter of the use of recycled water. We have had a mandatory ordinance that requires designated users to utilize recycled water since 1992. Our use sites include 3 schools, a senior assisted living center, tourist attractions such as Legoland and the Flower Fields, and 24-hour facilities such as the Four Seasons Hotel and La Costa Resort. Recycled water is used to irrigate common areas for many of our homeowner associations.

A number of the Plumbing Code/Cross Connection Control and Regulations and Permitting recommendations, if implemented, would be a serious impediment to the City of Carlsbad's recycled water program. Currently, we conduct an annual inspection of all recycled water use sites. A cross connection control shutdown test is conducted at each use site served with both potable and recycled water at least once every four years. Our use site monitoring program ensures that each site is checked at least once per week to make sure recycled water is being used in accordance with our rules and regulations. These activities are integral to the success of our program and contribute to the excellent working partnership we enjoy with both the end site users and our regulatory agencies.

Based on over 10 years of recycled water experience, the Plumbing Code/Cross Connection Control recommendation that "DHS guidance should be prepared that would clarify the requirement for testing in Title 22, Section 60316(a) and stress that alternatives to a pressure test are sufficient in many cases" would not adequately protect our public water supply. The best way to determine if there is a cross connection between the recycled water and potable water systems is to conduct a shutdown test involving a pressure test of both systems. The recommendation to conduct an annual visual inspection, which would involve fully exposing the recycled water piping from the meter to the last area of potential use is unfeasible for obvious reasons.

My next comment concerns the recommendation that "DHS should amend Title 22, Article 5 to incorporate inspection and testing requirements...included as Appendix C in the Plumbing Code/Cross Connection Control White Paper." Again, it has been our experience that the best way to verify there are no cross connection tests is to conduct a shutdown test involving a pressure test of both systems. In order to have a level of confidence in the test results, it is necessary that the shutdown test be performed by a certified Cross Connection Control Specialist with experience in the field of recycled water.

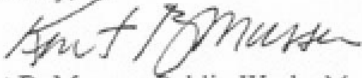
I concur that the "concept of statewide uniformity" is a worthwhile endeavor that we should strive to attain. To protect the health and safety of the public, uniform recycled water standards that require periodic shutdown tests, annual inspections and frequent use site monitoring would be strongly supported by the City of Carlsbad.

I support the Plumbing Code/Cross Connection Control recommendation that a thorough assessment of the risk associated with cross-connections between disinfected tertiary recycled water and potable water. The proposed study would include the likelihood of a cross-connection in various use situations. It is obvious that a cross-connection is most likely to occur when recycled water is used for irrigation and potable water is available nearby, especially on retrofit sites where white PVC pipe is used for both systems.

The 2002 Recycled Water Task Force has reached good recommendations concerning public information, education and outreach. As a suggestion, we have learned that educating the end users is critical to the safe use of recycled water.

In closing, the City of Carlsbad is dedicated to protecting the potable water supply for all those who enjoy our City and would seriously oppose any legislation that would lessen our ability to protect the public water supply. Should you have any questions, please feel free to call me at (760) 438-2722.

Sincerely,



Kurt B. Musser, Public Works Manager  
Utility Operations